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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,195	01/14/2002	Moises E. Robinson	X-975 US	5065

24309 7590 03/13/2006

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EXAMINER

COFFY, EMMANUEL

ART UNIT PAPER NUMBER

2157

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/047,195	Applicant(s) ROBINSON ET AL.	
	Examiner Emmanuel Coffy	Art Unit 2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This action is responsive to the amendment filed on December 21, 2005. Claims 1-67 are pending. Claims 1-67 are directed to a method, apparatus and system for "Configuring Data Transmissions Within a Micro-Area Network." are pending.

Response to Arguments

2. Applicant's changes to claims 5-6 and 39-40 are acknowledged and the objections pertaining thereto are hereby withdrawn.
3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.
4. Applicant is advised that only the significant amendments are herein addressed, namely the amendments to claims 1, 15, 33, 37, 46 and 64. The dependent and non-amended claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

The Examiner asserts that the added recitation forming a new element finds no support in the spec. If however, applicant believes the added recitation is described in the spec to point out where it's found.

Specification

5. The amendment is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission

path between the transmitting entity and the target entity prior to the data transmission.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claim 1-8, 11-25, 27-30, 32-33, 35-56, 58-61, 62-64, 66 and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Feuerstraeter et al. (US 6,917,594.)

Feuerstraeter teaches the invention as claimed including a network device which automatically detects the best protocol a network will support. The network device further includes negotiation logic coupled to the driver and receiver for selecting a protocol in coordination with other network devices. (See abstract)

Claim 1

Feuerstraeter teaches a method for transmitting entity of a plurality of entities within a network to establish a data transmission within the network, the method comprises: (See Fig. 1; col. 6, line 5-col. 7, line 15.)

determining identity of a target entity of the plurality entities; (See 6, lines 5-20; see also col. 10, lines 14-15 – the device is either 10BaseT or 100 BaseT)

determining transmission characteristics between the transmitting entity and the target entity; (See col. 6, lines 11-15; see also col. 10, lines 14-15)

determining a transmission convention based on the transmission characteristics; and (See col. 6, lines 11-15; see also col. 10, lines 14-15)

providing the transmission convention to the target entity; and (See col. 6, lines 35-45; see also 10, lines 14-15)

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

Claims 2 and 38:

Feuerstraeter teaches the method of claim 1 and transmitting entity of 37 further comprises:

awaiting an acknowledgement of receipt of the transmission convention from the

target entity; (See col. 9, lines 17-21.)

when the acknowledgement is received within a predetermined time frame,
processing data based on the transmission convention to produce transmit data; and
transmitting the transmit data to the target entity in accordance with the
transmission convention; and (See col. 9, lines 17-21.)

wherein the transmission convention is selected in response to the determined
transmission characteristics of a transmission path between the transmitting entity and
the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission
convention is nothing more than a protocol - transmission characteristics are
determined based on errors – a transmission path is nothing more than a
communication link.)

Claim 3:

Feuerstraeter teaches the method of claim 2 further comprises:

when the acknowledgement is not received within the predetermined time frame,
resending the transmission convention to the target entity until the acknowledgement
received within the predetermined time frame or a retry sequence has been exhausted.
(See col. 9, lines 17-21.)

Claim 4:

Feuerstraeter teaches the method claim 2 further comprises at least one of:
awaiting an acknowledgement of receipt of the transmit data; and (See col. 9, lines 27-
44.)
receiving an error message from the target entity that the transmit data was not

accurately received. (See col. 9, lines 27-44.)

Claims 5 and 39:

Feuerstraeter teaches the method claim 1 and the transmitting entity of claim 37 as discussed above, wherein the determining the identity of the target entity further comprises:

receiving a data packet that includes a destination address, wherein the destination address identifies the target entity. (See col. 7, lines 10-15; see also col. 10, claim 1)

Claims 6 and 40

Feuerstraeter teaches the method of claim 1, wherein the determining the identity of the target entity further comprises:

generating a data packet that includes a destination address, wherein the destination address identifies the target entity. (See col. 7, lines 10-15; see also col. 10, claim 1)

Claims 7 and 41:

Feuerstraeter teaches the method of claim 1 and the transmitting entity of claim 37 as discussed above, wherein the determining the transmission characteristics further comprises, for a given data transmission from the transmitting entity to the target entity, at least one of:

determining transmission resources available between the transmitting and target entities produce available transmission resources; (See col. 6, line 5-col. 7, line 15; see also col. 10, claim 1)

determining desired data rate of the given data transmission; (See col. 6, line 5-

col. 7, line 15; see also col. 10, claim 3)

determining transmission distance between the transmitting entity and the target entity; ((See col. 6, line 5-col. 7, line 15; see also col. 10, claim 3))

determining encoding capabilities of the transmitting entity and of the target entity; ((See col. 6, line 5-col. 7, line 15; see also col. 10, claim 1))

determining whether the target entity is a termination node or an intermediate node for the given data transmission; and (See col. 7, lines 9-15.)

determining characteristics of the available transmission resources. (See col. 6, lines 60-67.)

Claims 8 and 42:

Feuerstraeter teaches the method of claim 7 and the transmitting entity of claim 37 as discussed above, wherein the determining the transmission convention further comprises at least one:

determining encoding scheme for the given data transmission; (See col. 6, lines 30-60; see also col. 10, claim 1))

determining a modulation scheme for the given data transmission; (See col. 6, lines 30-60; see also col. 10, claim 1))

determining a number of the available transmission resources to support the given data transmission; (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1))

adjusting the data rate of the given data transmission; and (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3))

selecting a particular type of path for supporting the given data transmission.

(See col. 6, line 5-col. 7, line 15; See also col. 10, claim 8).

Claim 11:

The method of claim 8, wherein the determining the number of the available transmission resources to support the given data transmission further comprises:

determining whether the given data transmission will be a serial transmission or a parallel transmission based, at least in part, on the data rate of the given data transmission, the transmission distance between the transmitting entity and the target entity, and the particular type of path for supporting the given data transmission. (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

Claims 12 and 43

Feuerstraeter teaches the method of claim 1 and the transmitting entity of claim 37 as discussed above, wherein the determining the transmission characteristics further comprises, for a given data transmission:

accessing a look-up table to obtain at least one of:

transmission resources available between the transmitting and target entities to produce available transmission resources, desired data rate of the given data transmission, transmission distance between the transmitting entity and the target entity, encoding capabilities of the transmitting entity and of the target entity, and

characteristics of the available transmission resources. (See col. 7, lines 9-55)

Claims 13 and 44

Feuerstraeter teaches the method of claim 1 and the transmitting entity of claim 37 as discussed above, wherein the determining the transmission convention

further comprises, for a given data transmission:
accessing a look-up table to obtain at least one of:
encoding scheme for the given data transmission, (See col. 6, lines 60-67.)
modulation scheme for the given data transmission, number of the available
transmission resources to support the given data transmission, desired data rate of the
given data transmission, and particular type of path for supporting the given data
transmission. (See col. 7, lines 9-55)

Claims 14 and 45

Feuerstraeter teaches the method of claim 1 and the transmitting entity of claim
37 as discussed above, wherein the providing the transmission convention
further comprises at least one of:
encoding the transmission convention utilizing a default encoding scheme to
produce encoding transmission convention; (See col. 7, lines 9-55)
setting a field within overhead portion of data packet to indicate the transmission
convention; and (See col. 7, lines 9-55)
transmitting a unique message via a set-up bus indicating the transmission
convention. (See col. 7, lines 9-55)

Claim 15:

Feuerstraeter teaches a method for establishing a data transmission within a
network that includes a plurality of entities, the method comprises: (See Fig. 1)
identifying a pending data transmission between a transmitting entity of the
plurality of entities and a target entity of the plurality of entities; (See col. 6, line 5-

col. 7, line 15; See also col. 10, lines 14-15 – the device is either 10BaseT or 100 BaseT)

determining transmission characteristics between the transmitting entity and the target entity; (See col. 6, line 5-15; See also col. 10, claim 1)

determining a transmission convention based on the transmission characteristics; and (See col. 6, line 5-15; See also col. 10, claim 1)

providing the transmission convention to the transmitting entity and the target entity; and (See col. 6, line 35-45; See also col. 10, claim 1).

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

Claims 16 and 47:

Feuerstraeter teaches the method claim 15 and the apparatus of claim 46 as discussed above, wherein the identifying a pending data transmission further comprises:

receiving an indication from the transmitting entity. (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

Claims 17 and 48:

Feuerstraeter teaches the method of claim 15 and the apparatus of claim 46 as

discussed above, wherein the identifying a pending data transmission further comprises:

receiving a data packet relating to the data transmission from a source external to the network; ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

interpreting the data packet to identify the transmitting entity for initial receipt of the data packet within the network; and (See col. 6, lines 11-59.)

receiving an indication from the transmitting entity of the data transmission with the target entity. (See col. 6, lines 11-59.)

Claims 18 and 49:

Feuerstraeter teaches the method of claim 15 and the apparatus of claim 46 as discussed above, wherein the determining the transmission characteristics further comprises at least one of:

determining transmission resources available between the transmitting and target entities to produce available transmission resources; ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

determining desired data rate of the given data transmission; ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

determining transmission distance between the transmitting entity and the target entity; ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

determining encoding capabilities of the transmitting entity and of the target entity; ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

determining whether the target entity is a termination node or an intermediate

node for the given data transmission; and ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

determining characteristics of the available transmission resources. (See col. 6, lines 60-67; See also col. 10, claim 1)

Claims 19 and 50:

Feuerstraeter teaches the method of claim 18 and the apparatus of claim 49 as discussed above, wherein the determining the transmission convention further comprises at least one of:

determining encoding scheme for the data transmission; (See col. 7, lines 9-55)

determining a modulation scheme for the data transmission; (See col. 7, lines 9-55)

determining a number of the available transmission resources to support the data transmission; (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

adjusting the data rate of the data transmission; and ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

selecting a particular type of path for supporting the data transmission. ((See col. 6, line 5-col. 7, line 15; See also col. 10, claim 8)

Claims 20 and 51.

Feuerstraeter teaches the method of claim 15 and apparatus of claim 46 as discussed above, wherein the determining the transmission characteristics further comprises:

accessing a look-up table to obtain at least one of:

transmission resources available between the transmitting and target entities to produce available transmission resources, (See col. 7, lines 9-55)

desired data rate of the given data transmission, (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

transmission distance between the transmitting entity and the target entity, encoding capabilities of the transmitting entity and of the target entity, and (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

characteristics of the available transmission resources. (See col. 6, lines 5-20; See also col. 10, lines 14-15 – the device is either 10BaseT or 100 BaseT)

Claims 21 and 52:

Feuerstraeter teaches the method of claim 15 and apparatus of claim 46 as discussed above, wherein the determining the transmission convention further comprises:

accessing a look-up table to obtain at least one of:

encoding scheme for the given data transmission, (See col. 6, lines 60-67.)

modulation scheme for the given data transmission, (See col. 6, lines 30-60, see also claim 1)

number of the available transmission resources to support the given data transmission, (See col. 7, lines 9-55)

desired data rate of the given data transmission, and (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 3)

particular type of path for supporting the given data transmission. (See col. 6, line

5-col. 7, line 15; See also col. 10, claim 8).

Claims 22 and 53:

Feuerstraeter teaches the method of claim 15 and apparatus of claim 46 as discussed above, wherein the providing the transmission convention further comprises at least one of:

encoding the transmission convention utilizing a default encoding scheme to produce encoding transmission convention; (See col. 7, lines 9-55)

transmitting a unique message via a set-up bus indicating the transmission convention. (See col. 7, lines 9-55)

Claim 23.

Feuerstraeter teaches a method for transmitting entity of a plurality of entities within a network to establish a data transmission within the network, the method comprises:

identifying a target entity of the plurality of entities regarding the data transmission; (See col. 6, lines 5-20; See also col. 10, claim 1)

determining bandwidth of the data transmission; (See col. 6, lines 11-15 ; See also col. 10, claim 3)

determining number of transmissions resources based on the bandwidth of the data transmission and a transmission convention; and (See col. 6, lines 5-col. 7, line 15; See also col. 10, claim 1)

accessing the number of transmission resources to transmit data to the target entity. (See col. 7, lines 9-55)

Claims 24 and 29.

Feuerstraeter teaches the method of claim 23 and the method of claim 28 respectively as discussed above, wherein the determining the bandwidth of the data transmission further comprises at least one of:

identifying transmission bandwidth capabilities of the transmitting entity; and (See col. 6, lines 11-15; See also col. 10, claim 3.)

identifying reception bandwidth capabilities of the target entity. (See col. 6, line 5- col. 7, line 15; See also col. 10, claim 3.)

Claims 25 and 30.

Feuerstraeter teaches the method of claim 23 and the method of claim 28 respectively as discussed above, wherein the determining the number of transmission resources further comprises at least one of:

identifying the transmission convention as an individual transmission convention for data transmissions from the transmitting entity; (See col. 7, lines 16-37 and col. 10, claim 1.)

identifying the transmission convention as a standard transmission convention for the network; and (See col. 7, lines 16-37 and col. 10, claim 1.)

identifying the transmission convention uniquely for the data transmission. (See col. 10, claim 8.)

Claims 27 and 32.

Feuerstraeter teaches the method of claim 23 and the method of claim 28

respectively as discussed above, wherein the determining the number of transmission resources further comprises:

determining characteristics of the transmission resources between the transmitting entity and the target entity; and (See col. 6, lines 5-20; See also col.10, lines 14-15 – the device is either 10BaseT or 100 BaseT)
optimizing the transmission convention based on the characteristics of the transmission resources. (See col. 6, line 5-col. 7, line 15 ; See also col. 10, claims 2, 7 and 8.)

Claim 28.

Feuerstraeter teaches a method for establishing a data transmission within a network that includes a plurality of entities, the method comprises:

identifying a transmitting entity and a target entity of the plurality of entities regarding the data transmission; (See col. 6, lines 5-20; See also col. 10, claim 1.)

determining bandwidth of the data transmission; (See col. 6, lines 11-15; See col. 10, claim 3.)

determining number of transmissions resources based on the bandwidth of the data transmission and a transmission convention; and (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

accessing the number of transmission resources to transmit data to the target entity. (See col. 7, lines 9-55)

Claim 33:

Feuerstraeter teaches a method for establishing data transmission within a network that includes a plurality of entities, the method comprises:

establishing configuration communication between a transmitting entity and a target entity of the plurality of entities; (See col. 6, line 5-col. 7, line 15 ; See also col. 10, claims 7 and 8.)

determining transmission characteristics between the transmitting entity and the target entity; (See col. 6, lines 11-15; See also col. 10, claim 1)

determining at least one transmission convention based on the transmission characteristics; and (See col. 6, line 5-col. 7, line 15; See also 10, claims 1, 7 and 8.)

maintaining the at least one transmission convention by the transmitting and target entities; and (See col. 6, line 5-col. 7, line 15; See also col. 10, lines 1-67.)

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

Claims 35 and 66.

Feuerstraeter teaches the method of claim 33 and the apparatus of claim 64 respectively as discussed above, further comprises:

deriving a table of transmission conventions based on at least one of: the varying bandwidths, characteristics of each connection, the various encoding schemes, and the various modulation schemes. (See col. 6, line 5-col. 7, line 15; See also col. 10, claims 1 and 3.)

Claims 36 and 67.

Feuerstraeter teaches the method of claim 35 and the apparatus of claim 64 respectively as discussed above, wherein the determining the at least one transmission convention further comprises:

selecting the at least one transmission convention based on at least one of:
available connections between the transmitting entity and the target entity, bandwidth of data, and characteristics of the available connections. (See col. 6, line 5-col. 7, line 15; See col. 10, claims 1 and 3.)

Claim 37

Feuerstraeter teaches a transmitting entity within a network comprises:
processing module; and
memory operably coupled to the processing module, wherein the memory
includes operational instructions that cause the processing module to establish a
data transmission within the network by: (See Fig. 1)
determining identity of a target entity of the plurality of entities; (See col. 6, lines 11-15; see also col. 10, claim 1)
determining transmission characteristics between the transmitting entity and the target entity; (See col. 6, lines 11-15; see also col. 10, claim 1)
determining a transmission convention based on the transmission characteristics; and
(See col. 6, lines 11-15; see also col. 10, claim 1)
providing the transmission convention to the target entity; and (See col. 6, lines 11-15; see also col. 10, claim 1) (See col. 10, lines 1-5.)

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

Claim 46

Feuerstraeter teaches an apparatus for establishing a data transmission within a network that includes a plurality of entities, the apparatus comprises: (See Fig. 1: col. 6, line 5-col. 7, line 15.)

processing module; and (See Fig. 1)

memory operably coupled to the processing module, wherein the memory includes operational instructions that cause the processing module to: (See Fig. 1 – inherently included in any of (20), (22), (24), (26) or (28).

Identify a pending data transmission between a transmitting entity of the plurality of entities and a target entity of the plurality of entities; (See col. 6, lines 11-55; see also col. 10, claim 1)

determine a transmission characteristics between the transmitting entity and the target entity; (See col. 6, lines 11-15; see also col. 10, lines 14-15)

determine a transmission convention based on the transmission characteristics; and (See col. 6, lines 11-15; see also col. 10, lines 14-15)

provide the transmission convention to the transmitting entity and the target

entity; and (See col. 6, lines 35-45; see also 10, lines 14-15)

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

Claim 54

Feuerstraeter teaches a transmitting entity within a network comprises:
processing module; and (See Fig.1)

memory operably coupled to the processing module, wherein the memory includes operational instructions that cause the processing module to establish a data transmission within the network by: (See Fig.1)

identifying a target entity of the plurality of entities regarding the data transmission; (See col. 6, lines 11-15; see also col. 10, claim 1)

determining bandwidth of the data transmission; (See col. 6, lines 11-15; see also col. 10, claim 3)

determining number of transmissions resources based on the bandwidth of the data transmission and a transmission convention; and (See col. 6, line 5-col. 7, line 15; See also col. 10, claim 1)

accessing the number of transmission resources to transmit data to the target entity. (See col. 7, lines 9-55)

Claims 55 and 60:

Feuerstraeter teaches the transmitting entity of claim 54 and the apparatus of claim 59 respectively as discussed above, wherein the memory further comprises operational instructions that cause the processing module to determine the bandwidth of the data transmission by at least one of: (See Fig. 1)

identifying transmission bandwidth capabilities of the transmitting entity; and (See col. 6, lines 11-15; see also col. 10, claim 3)

identifying reception bandwidth capabilities of the target entity. (See col. 6, lines 5-20; see also col. 10, claim 3) (either 10BaseT or 100 BaseT.)

Claims 56 and 61:

Feuerstraeter teaches the transmitting entity of claim 54 and the apparatus of claim 59 respectively as discussed above, wherein the memory further comprises operational instructions that cause the processing module to determine the number of transmission resources by at least one of:

identifying the transmission convention as an individual transmission convention for data transmissions from the transmitting entity; (See col. 6, line 5-col. 7, line 15; see also col. 10, claim 1)

identifying the transmission convention as a standard transmission convention for the network; and (See col. 10, claim 1)

identifying the transmission convention uniquely for the data transmission. (See col. 6, line 5 col. 7, line 15; See also col. 10, claim 8.)

Claims 58 and 63:

Feuerstraeter teaches the transmitting entity of claim 54 and the apparatus of claim 59 respectively as discussed above, wherein the memory further comprises operational instructions that cause the processing module to determine the number of transmission resources by: (See Fig. 1)

determining characteristics of the transmission resources between the transmitting entity and the target entity; and (See col. 6, lines 11-15; see also col. 10, claim 1)

optimizing the transmission convention based on the characteristics of the transmission resources. (See col. 6, line 5-col. 7, line 15; see also 10, claim 2, 7 and 8.)

Claim 64

Feuerstraeter teaches an apparatus for establishing a data transmission within a network that includes a plurality of entities, the apparatus comprises: (See Fig. 1; col. 6, line 5-col. 7, line 15.)

processing module; and (See Fig. 1)

memory operably coupled to the processing module, wherein the memory includes operational instructions that cause the processing module to: (See Fig. 1 – inherently included in any of (20) ,(22), (24), (26) or (28).

establish configuration communication between a transmitting entity and a target entity of the plurality of entities; (See col. 6, lines 11-55; see also col. 10, claim 1)

determine transmission characteristics between the transmitting entity and the target entity; (See col. 6, lines 11-15; see also col. 10, lines 14-15)

determine at least one transmission convention based on the transmission characteristics; and (See col. 6, lines 11-15; see also col. 10, lines 14-15)

maintain the at least one transmission convention by the transmitting and target entities; and (See col. 6, lines 35-45; see also 10, lines 14-15)

wherein the transmission convention is selected in response to the determined transmission characteristics of a transmission path between the transmitting entity and the target entity prior to the data transmission. (See col. 8, lines 9-16). (A transmission convention is nothing more than a protocol - transmission characteristics are determined based on errors – a transmission path is nothing more than a communication link.)

8. Claim 37 is further rejected under 35 U.S.C. §102(e) as being anticipated by Sridhar (US 6,266,701)

Sridhar also teaches the invention as claimed including a communication system for improving communication over a data network between an application and remote systems where each of the remote systems is configured to communicate using at least one of multiple transport layer communication protocols. (See abstract)

Claim 37

Sridhar teaches a transmitting entity within a network comprises:

processing module; and

memory operably coupled to the processing module, wherein the memory

includes operational instructions that cause the processing module to establish a

data transmission within the network by: (See col. 10, lines 21-36.)
determining identity of a target entity of the plurality of entities; (See col. 11, lines 5-60;
see also col. 24, claims 1 and 11)

determining transmission characteristics between the transmitting entity and the
target entity; (See Figs. 10, 11; col. 8, line 1-col. 9, line 60; see also col. 24, claim
1)

determining a transmission convention based on the transmission characteristics;
and (See Figs. 10, 11; col. 8, line 1-col. 9, line 60; see also col. 24, claim 1)

providing the transmission convention to the target entity; and (See Figs. 10, 11;
col. 8, line 1-col. 9, line 60; see also col. 24, claim 5)

wherein the transmission convention is selected in response to the determined
transmission characteristics of a transmission path between the transmitting entity and
the target entity prior to the data transmission. (See col. 23, lines 26-30 and 55-64).

9. Claims 9, 10, 26, 31 and 57, 62 are rejected under 35 U.S.C. §103(a) as being
unpatentable over Feuerstraeter in view of Computer Networks by Andrew S.
Tanenbaum (only used as evidence for Official Notice.)

Claim 9:

The method of claim 8, wherein the determining the encoding scheme comprises
at least one of:

determining multilevel encoding for the given data transmission;

determining non return to zero (NRZ) encoding for the given data transmission;

- determining Manchester encoding for the given data transmission;
- determining block encoding for the given data transmission; and
- determining nB/mB encoding for the given data transmission, where $n < m$.

As for above claim, "Official Notice" is taken that the use of the different encoding mechanisms as disclosed by Andrew S. Tanenbaum is well known and expected in the art. It would have been obvious to use the encoding schemes disclosed by Tanenbaum since it is a well known process in the art.

Claim 10:

The method of claim 8, wherein the determining the modulation scheme further comprises at least one of:

- determining pulse position modulation (PPM) for the given data transmission;
- determining time division multiplexing (TDM) for the given data transmission;
- determining frequency division multiplexing (FDM) for the given data transmission;
- determining pulse amplitude modulation (PAM) for the given data transmission;
- determining amplitude shift keying (ASK) for the given data transmission;
- determining frequency shift keying (FSK) for the given data transmission;
- determining phase shift keying (PSK) for the given data transmission;
- determining quadrature phase shift keying (QPSK) for the given data transmission; and
- determining carrier sense multiple access for the given data transmission.

As for above claim, "Official Notice" is taken that the use of the different encoding mechanisms as disclosed by Andrew S. Tanenbaum is well known and expected in the

art. It would have been obvious to use the encoding schemes disclosed by Tanenbaum since it is a well known process in the art.

Claims 26 and 31.

Feuerstraeter teaches the method of claim 23 and the method of claim 28 respectively as discussed above, wherein the accessing the number of transmission resources further comprises at least one of:

utilizing carrier sensed multi access protocol to access each of the transmission resources; receiving access to the transmission resources in response to receiving a token; and receiving access to the transmission resources accordance with division multiplexing.

As for above claims, "Official Notice" is taken that the use of the different protocols such as CSMA as disclosed by Andrew S. Tanenbaum is well known and expected in the art. It would have been obvious to use the CSMA as a protocol disclosed by Tanenbaum since it is a well known process in the art.

Claims 57 and 62:

Feuerstraeter teaches the transmitting entity of claim 54 and the apparatus of claim 59 respectively as discussed above, wherein the memory further comprises operational instructions that cause the processing module to access the number of transmission resources by at least one of:

utilizing carrier sensed multi access protocol to access each of the transmission resources; receiving access to the transmission resources in response to receiving a

token; and receiving access to the transmission resources in accordance with division multiplexing.

As for above claims, "Official Notice" is taken that the use of the different protocols such as CSMA as disclosed by Andrew S. Tanenbaum is well known and expected in the art. It would have been obvious to use the CSMA as a protocol disclosed by Tanenbaum since it is a well known process in the art.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 34 and 65 rejected under 35 U.S.C. 103(a) as being unpatentable over Feuerstraeter et al. ('594) in view of Scoville et al. (US 6,618,360.)

Feuerstraeter teaches the invention as claimed including a network device which automatically detects the best protocol a network will support. The network device further includes negotiation logic coupled to the driver and receiver for selecting a protocol in coordination with other network devices. (See abstract)

Claims 34 and 65.

Feuerstraeter substantially teaches the method of claim 33 and the apparatus of claim 64 respectively as discussed above. Feuerstraeter does not teach "wherein the establishing configuration communication further comprises at least one of:

transmitting test data from the transmitting entity to the target entity at varying

bandwidths;

transmitting test data over each connection between the transmitting entity and the target entity;

transmitting test data from the transmitting entity to the target entity using various encoding schemes; and

transmitting test data from the transmitting entity to the target entity using various modulation schemes.” However Scoville does at col. 4, lines 5-15 and col. 8, lines 34-48 specifically notwithstanding that the entire art is applied against the invention at bar.

Hence, it would have been obvious at the time of the invention for an artisan of ordinary skill in the art to combine the use of the automatic protocol selection disclosed by Feuerstraeter with the method for testing data path of peripheral server devices as taught by Scoville, this would enable designers to more easily and efficiently make internal design changes that will improve the overall performance of their products.

CONCLUSION

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Cox et al. (U.S. 6,172,981) teaches “Method And System For Distributing Network Routing Functions To Local Area Network Stations.”
- Bonneau et al. (US 6, 577,229) teaches “Multiple Protocol Smart Card Communication Device.”
- Sloane (US 6,912,223) teaches “Automatic Router Configuration.”

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (571) 272-3997. The examiner can normally be reached on 8:30 - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-3997. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

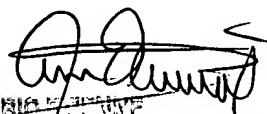
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2157

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Emmanuel Coffy,
Patent Examiner
Art Unit 2157

EC
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